



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,579	10/15/2003	George W. Fitzmaurice	1500.1086	1747
21171	7590	01/29/2010		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER TRAN, TUYETLENN T	
			ART UNIT 2179	PAPER NUMBER
			MAIL DATE 01/20/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/684,579

**Applicant(s)**

FITZMAURICE ET AL.

**Examiner**

TUYETLIEN T. TRAN

**Art Unit**

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to the following communication: Appeal Brief filed 10/19/09.

**This action is made non-final.**

2. Claims 1-34 are pending in the case. Claims 1, 19-22, 29-33 are independent claims.
3. In view of the appeal brief filed on 10/19/09, PROSECUTION IS HEREBY REOPENED.

A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

### **Claim Objections**

- ☐ Claim 1 is objected to because the term "the menu and controls" in line 7 lack antecedent basis. Claim 1 is also objected to because it is not clear which of the "a second region control" or "the first region control" - having an outer edge.
- ☐ Claims 2, 3 and 34 are objected to because of informalities: the term "a user interface" in line 1 of the claims should be changed to "a graphical user interface" to be consistent with claim language of claim 1.

- Claims 4-18 are objected to because of informalities: the term "an interface" in line 1 of the claims should be changed to "a graphical user interface" to be consistent with claim language of claim 1.
- Claim 6 is objected to because of informalities: terms "one of a zoom and pan icon" lacks antecedent basis.
- Claim 19 is objected to because the term "the menu" in line 13, the term "the second control region" in line 6, the term "the first control region control" in line 4, the term "the tracking symbol" in lines 11, 17 lack antecedent basis. Claim 19 is also objected to because of informalities: it is not clear whether the term "the functions" in line 15 is referring to the zoom and pan functions, the third function or addition functions. Also, the term "the interface" in lines 11, 15 should be changed to "the graphical user interface"; the term "the second region control" should be changed to "the ring shaped second region control" to be consistent with the claim language.
- Claim 20 is objected to because it is not clear "a movable control", "a first function", "second function" is having an exterior edge as recited in lines 3-4 of the claim.
- Claim 21 is objected to because it is not clear "a tracking menu", "a first function" is having an exterior edge as recited in line 3 of the claim.
- Claim 22 is objected to because of informalities: terms "the pan and zoom operation" in line 5, "the tracking menu" in line 3 lack antecedent basis.
- Claim 34 is objected to because the term "the menu" recited in line 15 of the claim lacks the antecedent basis for the term.
- Claims 1-21, 32, 34, claims 1-21, 32, 34 are objected to because the term "A graphical user interface displayed on a display" raises a question of whether the claims include a statutory subject matter. The claims appear to be directed towards software

components because it is this graphical user interface being claimed not the display. It is suggested that the term "A graphical user interface displayed on a display" should be changed to "A graphical user interface display".

Appropriate correction is required.

#### **Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-3, 7-9, 13, 16-18, 20, 21, 33, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leavitt et al. (US 2002/0085037 A1; hereinafter Leavitt) in view of Iwema et al. (US 2004/0021647 A1; hereinafter Iwema).**

**As to claims 1 and 33, Leavitt teaches:**

A graphical user interface displayed on a display (e.g., see Figs. 2A-2C and [0061]), comprising:

a first region control initiating a first function when activated (e.g., see Fig. 2A and [0061], [0067]; a button in the button groups 230 with command associated with a button);

a second region control associated with the first region control having an outer edge and initiating a second function (e.g., see Fig. 2A and [0061], [0067]; a button in the first group of buttons having outer edge - with command associated with a button);

a tracking menu boundary surrounding the first and second region controls (e.g., see Fig. 2A; the menu boundary is surrounded the two groups of buttons having a first and second buttons) and coincident with the outer edge (e.g., the menu and the outer edge of the buttons in the first group of button are coincident as shown in Fig. 2A) and the menu and controls are always visible when one of the controls is not activated and always not visible when one of the controls is activated (e.g., see [0030]; once activated the menu including the buttons is visible and disappear once a selection is made); and

a tracking symbol tracking a position of a position transducer moved by a user, movable within the first and second region controls (e.g., see [0053], [0054], [0065]; cursor that is movable by input device by a user; wherein the buttons from the groups are selectable by the user using the cursor), and indicating event focus for activating and performing the first and second functions (e.g., see Fig. 2B and [0061], [0065], [0067]; buttons are highlighted when selected to perform the associated command).

While Leavitt clearly suggests initiating movement of the interface to tracking the tracking symbol (e.g., see [0061]; the menu is displayed in a relative position about the cursor position to substantially reduce cursor commute), Leavitt does not expressly teaches initiating movement of the interface to track the tracking symbol when the boundary is encountered by the tracking symbol during movement of the tracking symbol. However, Iwema is relied upon for teaching this deficiency. Iwema teaches a context menu having a plurality of activatable controls that are displayed at a location of the display device corresponding to a position selectable by a pointer device (e.g., see Figs. 3, 9). With regarding claim 1, Iwema teaches a tracking symbol tracking a position of a position transducer moved by a user (e.g., items 204, 205 as shown in Fig. 2 and [0038]), movable within the buttons of the menu (e.g., see Fig. 3 and [0043]), initiating movement of the interface to track the tracking symbol when the boundary is

encountered by the tracking symbol during movement of the tracking symbol (e.g., see Fig. 5 and [0043]; the contextual menu can be draggable using an input device including when the cursor is at the position of the boundary of the menu).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the movable menu of Leavitt to include the feature of a contextual menu that is draggable using a cursor controlled by an input device as suggested by Iwema to allow the user to move menu along the cursor when the boundary is encountered as claimed. One would be motivated to make such a combination is to allow the user to move the cursor to any desired position; and thus, enhance the user's experience with the menu.

**As to claim 20**, Leavitt teaches:

A graphical user interface displayed on a display (e.g., see Figs. 2A-2C and [0061]), comprising:

a movable control (e.g., see [0061]) having a first function activatable in an entire peripheral region of the control (e.g., see Fig. 2A and [0067]; a button in the first group of buttons - with command associated with a button; note the number of buttons to be displayed can be configured by the user, see [0061]) and a second function activatable in a central region of the control (e.g., see Fig. 2A and [0061], [0067]; a button in the button groups 230 with command associated with a button) having an exterior edge (e.g., see Fig. 2A; the menu or movable UI has an exterior edge); and

a tracking symbol movable within the control (e.g., see [0053], [0054], [0065]; cursor that is movable by input device by a user; wherein the buttons in the menu are selectable by the user using the cursor) and moving the control when the cursor moves (e.g., see [0061]; the menu is displayed in a relative position about the cursor position to substantially reduce cursor commute) and the control is always visible when one of the functions is not activated and

always not visible when one of the functions is activated (e.g., see [0030]; once activated the menu including the buttons is visible and disappear once a selection is made).

While Leavitt clearly suggests moving the control when the cursor moves (e.g., see [0061]; the menu is displayed in a relative position about the cursor position to substantially reduce cursor commute), Leavitt does not expressly teaches moving the control when the exterior edge of the peripheral region is encountered. However, Iwema is relied upon for teaching this deficiency. Iwema teaches a tracking symbol tracking movable within the buttons of the menu (e.g., see Fig. 3 and [0043]) and moving the control when the exterior edge of the peripheral region is encountered (e.g., see Fig. 5 and [0043]; the contextual menu can be draggable using an input device including when the cursor is at the position of the boundary of the menu). Thus, combining Leavitt and Iwema would meet the claim limitations for the same reasons as set forth in claim 1.

**As to claim 21**, this claim is in the same context of claim 20 and therefore is rejected under similar rationale including the following:

Leavitt teaches a tracking menu (e.g., see [0061]) and a tracking symbol tracking a position of a user positionable input transducer (e.g., see [0053], [0054], [0065]; cursor that is movable by input device by a user; wherein the buttons in the menu are selectable by the user using the cursor).

**As to claim 2**, Leavitt wherein the second region control surrounds the first region control (e.g., see Fig. 2A and [0061]; wherein numbers of the button and shape, commands are user-configurable).

**As to claim 3**, Leavitt wherein the first region control is circular in shape (e.g., see Fig. 2A and [0061]; wherein numbers of the button and shape, commands are user-configurable).



**As to claim 7**, Selker further teaches the first region control is circular shaped and the second region control is ring shaped (e.g., see Fig. 2A).

**As to claim 8**, Leavitt teaches and an icon for the second region control is displayed when the tracking symbol is over the second region control (e.g., see Figs. 2A-2C). Iwema wherein the second region control is made invisible during movement (e.g., see Fig. 5). Thus, combining Leavitt and Iwema would meet the claim limitations for the same reasons as set forth in claim 1.

**As to claim 9**, Leavitt teaches the second region control is segmented into ring segments each being a different control (e.g., see Fig. 2A).

**As to claim 13** Leavitt wherein the interface is semi transparent when the functions are not activated, transparent when the functions are activated (e.g., see [0061], [0067], [0081]).

**As to claim 16**, Leavitt teaches the second region control has an exterior graphic edge (e.g., see [0139] and Fig. 2A) wherein the exterior edge is coincident with the tracking boundary (e.g., the menu and the outer edge of the buttons in the first group of button are coincident as shown in Fig. 2A).

**As to claim 17**, Leavitt teaches the interface is invoked by pressing an activation key (e.g., see [0016], [0061]).

**As to claim 18**, Leavitt teaches the interface is displayed while an activation key is active (e.g., see [0061], [0064]).

**As to claim 34**, Iwema teaches wherein said initiating movement of the interface to track the tracking symbol occurs when the menu and controls are not visible (e.g., Figs. 3, 9; wherein the context menu is moved corresponding to the pointer device while the menu is not visible). Thus, combining Leavitt and Iwema would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

**6. Claims 5, 22, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leavitt in view of Iwema further in view of Warnock et al. (Patent No 5,634,064; hereinafter Warnock).**

**As to claim 22**, Leavitt and Iwema teach a method comprising:

displaying a menu tool having an exterior edge; allowing a user to select operations of the menu tool using the tracking menu tool and an input transducer; performing a selected one of the operations responsive to movements of the input transducer by the user and causing the menu to move when the exterior edge is encountered; presenting the menu as always visible when one of the operations is not activated and always not visible when one of the operations is activated (e.g., see the rejection of claim 21 as set forth above).

While Leavitt clearly suggests that the number of buttons to be displayed in the menu and the commands/functions of the buttons are configured by the user (e.g., see [0061]), Leavitt and Iwema do not expressly teach the commands/functions of the menu includes pan and zoom operations.

Warnock teaches a user interface having a toolbar menu where the toolbar menu includes pan and zoom operations that when selecting one of the pan and zoom operation causes the selected operation to be performed (e.g., see col. 10 lines 20-35 and Fig. 4a). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention

was made, to have modified the tracking menu as taught by Leavitt and Iwema to include the well-known features of pan and zoom as suggested in Warnock to achieve the claim invention. One would be motivated to make such a combination is because pan and zoom operations made reading easier since they allow for detail display upon activation (e.g., see Warnock col. 2 lines 9-27).

**As to claim 29**, claim 29 reflects an apparatus comprising a display and a pen type input transducer and a computer coupled to the display and transducer and providing a pan-zoom tracking menu as claimed in claim 22, and is rejected under similar rationale (e.g., Leavitt teaches an apparatus comprising a display and a pen type input transducer and a computer coupled to the display and transducer, see [0054], [0077]).

**As to claim 30**, Leavitt teaches: a computer readable storage controlling a computer via a tracking menu having the appearance of a center and a surrounding ring with a menu exterior edge (e.g., see [0139] and Fig. 2A) wherein the exterior edge is coincident with the tracking boundary (e.g., the menu and the outer edge of the buttons in the first group of button are coincident as shown in Fig. 2A); and wherein the menu as always visible when one of the operations is not activated and always not visible when one of the operations is activated (e.g., see [0030]; once activated the menu including the buttons is visible and disappear once a selection is made).

While Leavitt clearly suggests moving the control when the cursor moves (e.g., see [0061]; the menu is displayed in a relative position about the cursor position to substantially reduce cursor commute), Leavitt does not expressly teaches interpreting transducer motion as a menu move event when an outer edge of the menu is encounter. However, Iwema is relied upon for teaching this deficiency. Iwema teaches a tracking symbol tracking movable within the

buttons of the menu (e.g., see Fig. 3 and [0043]) and interpreting transducer motion as a menu move event when an outer edge of the menu is encounter (e.g., see Fig. 5 and [0043]; the contextual menu can be draggable using an input device including when the cursor is at the position of the boundary of the menu). Thus, combining Leavitt and Iwema would meet the claim limitations for the same reasons as set forth in claim 1.

While Leavitt clearly suggests that the number of buttons to be displayed in the menu and the commands/functions of the buttons are configured by the user (e.g., see [0061]), Leavitt and Iwema do not expressly teach the menu is a pan and zoom tracking menu and interpreting transducer input events as pan and zoom selection and control events.

Warnock teaches a user interface having a toolbar menu where the toolbar menu includes is a zoom and pan menu such that input from the transducer is interpreted as pan and zoom selection and control events (e.g., see col. 10 lines 20-35 and Fig. 4a). Therefore, combining Leavitt, Iwema and Warnock would meet the claim limitations for the same reasons as set forth in claim 22.

**As to claim 31**, claim 31 reflects a computer readable medium controlling a computer by producing a graphical user interface on a display that has an appearance of a center and a surrounding ring graphic (e.g., see Leavitt [0061], [0139] and Fig. 2A), moving the graphic on the display as a tracking menu (e.g., see [0061]; the menu is displayed in a relative position about the cursor position to substantially reduce cursor commute). The menu of claim 31 has similar features as claimed in claim 30 above; and therefore is rejected under similar rationale.

**As to claim 32**, Leavitt teaches:

A graphical user interface, comprising: a tracking menu having a control in a center and another control surrounding the center control (e.g., see [0061] and Fig. 2A).

While Leavitt clearly suggests moving the control when the cursor moves (e.g., see [0061]; the menu is displayed in a relative position about the cursor position to substantially reduce cursor commute), Leavitt does not expressly teach the tracking menu moving when an area immediately outside the menu is about to be reached. However, Iwema is relied upon for teaching this deficiency. Iwema teaches a tracking symbol tracking movable within the buttons of the menu (e.g., see Fig. 3 and [0043]) and the tracking menu moving when an area immediately outside the menu is about to be reached (e.g., see Fig. 5 and [0043]; the contextual menu can be draggable using an input device including when the cursor is at the position of the boundary of the menu – interpreting an area immediately outside the menu). Thus, combining Leavitt and Iwema would meet the claim limitations for the same reasons as set forth in claim 1.

While Leavitt clearly suggests that the number of buttons to be displayed in the menu and the commands/functions of the buttons are configured by the user (e.g., see [0061]), Leavitt and Iwema do not expressly teach the menu is a pan and zoom tracking menu and interpreting transducer input events as pan and zoom selection and control events.

Warnock teaches a user interface having a toolbar menu where the toolbar menu includes is a zoom and pan menu such that input from the transducer is interpreted as pan and zoom selection and control events (e.g., see col. 10 lines 20-35 and Fig. 4a). Therefore, combining Leavitt, Iwema and Warnock would meet the claim limitations for the same reasons as set forth in claim 30.

**As to claim 5,** Leavitt and Iwema teach the limitations of claim 1, but does not teach the first function is a zoom and the second function is a pan function. Warnock teaches a user interface having a toolbar menu where the toolbar menu includes is a zoom and pan menu such that input from the transducer is interpreted as pan and zoom selection and control events (e.g.,

see col. 10 lines 20-35 and Fig. 4a). Therefore, combining Leavitt, Iwema and Warnock would meet the claim limitations for the same reasons as set forth in claim 22.

**7. Claims 2-4, 7, 9-12, 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leavitt in view of Iwema further in view of Selker (US 2002/0122072 A1; hereinafter Selker).**

**As to claim 2**, if Leavitt is not interpreted as teaching the limitation of the second region control surrounds the first region control. This limitation is disclosed by Selker; wherein Selker teaches a graphical user interface displayed on a display (e.g., see Fig. 1 and col. 2 lines 45-50) having a first region control initiating a first function when activated (e.g., region 10 with menu item placed therein as shown in Fig. 1 and col. 3 lines 35-43); a second region control associated with the first region control having an outer edge and initiating a second function (e.g., region 20 with menu item placed therein as shown in Fig. 1 and col. 3 lines 35-43); wherein the second region control surrounds the first region control (e.g., see Fig. 1). Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to have configured the tracking menu of Leavitt and Iwema to have the format of the second control surrounds the first region control as suggested by Selker to achieve the claim invention. One would be motivated to make such a combination is to provide a user interface can elevate the user's ease of interaction with the computer.

**As to claim 3**, Selker further teaches wherein the first region control is circular in shape (e.g., see Fig. 1). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claim 4**, Selker further wherein second region control is a most frequently used function (e.g., see col. 4, lines 62-67 through col. 5, lines 1-3). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claim 7**, Selker further teaches the first region control is circular shaped and the second region control is ring shaped (e.g., see Fig. 1). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claim 9**, Selker teaches the second region control is segmented into ring segments each being a different control (e.g., control buttons 63-70 as shown in Fig. 6). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claim 10**, Selker further teaches comprising a ring control having a ring shape surrounding the second control region (i.e., the outer ring, see Fig. 6) and initiating a third function when activated (e.g., see col. 4, lines 62-67 through col. 5, lines 1-3). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claims 11 and 14**, Selker further teaches comprising a button control initiating a third function when activated and located on a boundary between the first and second region controls (e.g., see Fig. 6). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claim 12**, Leavitt further teaches comprising a button control initiating a third function when activated and located within a region (e.g., see [0064]). Selker further teaches comprising a button control initiating a third function when activated and located within a region

(e.g., note that button 61 is located within the pie menu, see Fig. 6). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claim 15**, Selker further teaches button controls (i.e., control buttons 61 and 62 as shown in Fig. 6) initiating a functions when activated (i.e., functions that associates with buttons 61 and 62) and located on a boundary between the first and second region controls (see Fig. 6) and creating access channels for movement of the tracking symbol within the interface (i.e., the user can move the cursor within the ring region containing control buttons 61 and 62). Thus, combining Leavitt, Iwema and Selker would meet the claim limitations for the same reasons as set forth in claim 2.

**As to claim 16**, Selker further teaches a pie menu graphical user interface having a second region control associated with the first region control having an outer edge and initiating a second function (e.g., see Fig. 1). Strauss further teaches that a circular drag toolbar can be implemented using the disclose invention (e.g., see Fig. 3A; note that the zone boundary has the same shape as the circular/pie menu). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented this limitation to provide a user with a visual cue or feature as to what the tracking boundary is so that the user may use the tracking menu more efficiently.

**8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leavitt in view of Iwema further in view of Warnock as applied to claim 22 and further in view of Selker.**

**As to claim 27**, Leavitt, Iwema and Warnock teach the limitations of claim 22 as set forth above including the pan and zoom operations but do not teach that the tool includes a



replaceable control and designating the replaceable control as the most recently selected operation. Selker discloses the tool includes a replaceable control and said method further comprises designating the replicable control as the most recently selected operation (i.e., the menu item of highest frequency of use is placed in the level 1 circle 10; note that the menu items can be any symbols generally known and used as menu items, see col. 3, lines 35-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the combination to achieve the claim invention for the same reasons as set forth in claim 2.

**9. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leavitt in view of Iwema further in view of Warnock as applied to claim 22 and further in view of Mullet et al (Patent No 5,638,523; hereinafter simply refer to as Mullet).**

**As to claim 25**, Leavitt, Iwema and Warnock teach the limitations of claim 22 for the same reasons as discussed with respect to claim 22 above. Warnock further teaches a zoom control drop down option that allows the user to select the zoom level (e.g., 47% shown in Fig. 4a). However, Leavitt, Iwema and Warnock do not expressly teach designating a zoom control axis responsive to initial movement of the input transducer after the zoom operation is selected. Mullet, though, teaches a zoom control axis (i.e., magnification adjustment slider 17 as shown in Fig. 2a) responsive to initial movement of the input transducer (mouse 25 and cursor 21 as shown in Fig. 1) after the zoom operation is selected (i.e., when the browsing tool 10 is in the magnification mode, see col. 4, lines 65-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the browsing tool with the zoom control axis as taught by Mullet to the zoom and pan tracking menu as taught by Leavitt, Iwema and Warnock to achieve the claim invention.

The motivation for the combination is to allow the user to designate the zoom level as preferred and thus to efficiently browse through the information displayed on the screen (see Mullet col. 1, lines 57-60).

**As to claim 26**, Mullet further teaches comprising controlling a zoom scale factor responsive to a projection of transducer movements onto the control axis (see col. 5, lines 10-15). Thus combining Leavitt, Iwema, Warnock and Mullet would meet the claimed limitation for the same reasons as discussed with respect to claim 25 above.

**10. Claims 6, 23, 24, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leavitt in view of Iwema further in view of Warnock and Strauss (Patent No. US 6,246,411 B1, hereinafter Strauss)**

**As to claims 6 and 23**, Leavitt teaches wherein the interface is semi transparent when the functions are not activated, transparent when the functions are activated (e.g., see [0061], [0067], [0081]). However, Leavitt and Iwema do not expressly teach the functions of the controls of the menu are zoom and pan operations. This limitation is disclosed by Warnock as set forth in claim 22 above. Leavitt, Iwema and Warnock do not teach one of a zoom and pan icon replaces the tracking symbol when the functions are activated.

Strauss teaches a menu having a first and second control such that when activated the icon of the selected function replaces the tracking (e.g., see Figs. 1B, 1D).

Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the zoom and pan menu of Leavitt, Iwema and Warnock to include the feature of replacing the cursor with the icon of the selected function of the menu

as suggested by Strauss to achieve the claim invention. One would be motivated to make such a combination is to indicate to the user of the selected function.

**As to claim 24**, Strauss teaches the tool can be pinned (e.g., see col. 6 lines 17-29). Thus, combining Leavitt, Iwema, Warnock and Strauss would meet the claimed limitations for the same reasons as discussed with respect to claim 23 above.

**As to claim 28**, Strauss teaches the tool can be pinned and unpinned when the transducer moves over the "hook" button (e.g., see col. 6 lines 17-29). Thus, combining Leavitt, Iwema, Warnock and Strauss would meet the claimed limitations for the same reasons as discussed with respect to claim 23 above.

**11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selker in view of Leavitt and Iwema further in view of Warnock and Strauss.**

**As to claim 19**, Selker teaches:

A graphical user interface displayed on a display (e.g., see Fig. 1 and col. 2 lines 45-0), comprising:

a circular shaped first region control initiating a first function when activated (e.g., region 10 with menu item placed therein as shown in Fig. 1 and col. 3 lines 35-43);

a ring shaped second region control associated with the first region control having an outer edge and initiating a second function (e.g., region 20 with menu item placed therein as shown in Fig. 1 and col. 3 lines 35-43);

a ring control having a ring shape surrounding the second control region having an outer edge (i.e., the outer ring, see Fig. 6) and initiating a third function when activated, the third

function being a most frequently used function (e.g., see col. 4, lines 62-67 through col. 5, lines 1-3);

a button controls initiating an additional functions when activating (i.e., control buttons 61 and 62 as shown in Fig. 6), located on a boundary between the first and second region controls (e.g., Fig. 6; multi-level pie menu) and creating access channels for movement of the tracking symbol within the interface (i.e., the user can move the cursor within the ring region containing control buttons 61 and 62 – access channels are interpreting as movements direction between menu level);

a tracking menu boundary surrounding the ring control and coincident with the outer edge (e.g., see Fig. 6; menu boundary – outer ring);

the second region control has an exterior graphic edge and the tracking boundary coincides with the exterior graphic edge (e.g., Fig. 6; menu boundary – outer ring).

Selker does not teach the menu and controls are always visible when one of the controls is not activated and always not visible when one of the controls is activated; wherein the interface is semi transparent when the functions are not activated, transparent when the functions are activated; a second icon for the second region control is displayed when the tracking symbol is over the second region control..

Leavitt teaches a user interface wherein the menu and controls are always visible when one of the controls is not activated and always not visible when one of the controls is activated (e.g., see [0030]; once activated the menu including the buttons is visible and disappear once a selection is made); wherein the interface is semi transparent when the functions are not activated, transparent when the functions are activated (e.g., see [0061], [0067], [0081]); a second icon for the second region control is displayed when the tracking symbol is over the

second region control (e.g., see Fig. 2A-2C; buttons are highlighted when the cursor is over/activated/selected).

Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to have modified the pop-up pie menu of Selker to include the visibility and transparency features of Leavitt to achieve the claim invention. One would be motivated to make such a combination is to reduce the clutter of the work area (e.g., see Leavitt [0014]).

Selker and Leavitt do not teach the second region control is made invisible during movement. However, this deficiency is disclosed by Iwema; wherein Iwema teach a contextual menu including first and second region controls (e.g., see Fig. 3) wherein the controls are made invisible during movement including the second region control (e.g., see Fig. 5 and [0043]).

Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to have modified the pop-up pie menu of Selker and Leavitt to have the invisibility feature during menu movement of Iwema to achieve the claim invention. One would be motivated to make such a combination is to reduce the clutter of the screen area.

While Leavitt clearly suggests that the number of buttons to be displayed in the menu and the commands/functions of the buttons are configured by the user (e.g., see [0061]), Selker, Leavitt and Iwema do not expressly teach the first control initiating a zoom function and the second control initiating pan function.

Warnock teaches a user interface having a toolbar menu where the toolbar menu includes is a zoom and pan menu such that input from the transducer is interpreted as pan and zoom selection and control events (e.g., see col. 10 lines 20-35 and Fig. 4a). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the tracking menu as taught by Selker, Leavitt and Iwema to include the well-known features of pan and zoom as suggested in Warnock to achieve the claim invention. One

would be motivated to make such a combination is because pan and zoom operations made reading easier since they allow for detail display upon activation (e.g., see Warnock col. 2 lines 9-27).

Selker, Leavitt, Iwema and Warnock do not teach function icon replaces the tracking symbol when the functions are activated.

Strauss teaches a menu having a first and second control such that when activated the icon of the selected function replaces the tracking symbol (e.g., see Figs. 1B, 1D).

Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the zoom and pan menu of Selker, Leavitt, Iwema and Warnock to include the feature of replacing the cursor with the icon of the selected function of the menu as suggested by Strauss to achieve the claim invention. One would be motivated to make such a combination is to indicate to the user of the selected function.

### **Response to Arguments**

12. Applicant's arguments filed 10/19/09 have been fully considered but are moot in view of new grounds of rejection.

### **Conclusion**

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action.

It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. In re Heck, 699 F.2d 1331,

Art Unit: 2179

1332-33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting In re Lemelson, 397 F.2d 1006,1009, 158 USPQ 275,277 (CCPA 1968)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TuyetLien (Lien) T. Tran whose telephone number is 571-270-1033. The examiner can normally be reached on Mon-Friday: 7:30 - 5:00, off on alternating Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. T. T./  
Examiner, Art Unit 2179

/Weilun Lo/  
Supervisory Patent Examiner, Art Unit 2179